



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------|------------------|
| 09/438,288 | 11/12/1999 | CHENGKE SHENG | SC91189A | 9114 |
| 7590 06/10/2004 | | | EXAMINER | |
| HARRY A W | OLIN | | KUMAR, | PANKAJ |
| MOTOROLA INC AUSTIN INTELLECTUAL PROPERTY LAW SECTION | | | ART UNIT | PAPER NUMBER |
| 7700 WEST PARMER LANE MD TX32 PL02 AUSTIN, TX 78729 | | | 2631 | |
| | | | DATE MAILED: 06/10/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| This action is FINAL. 2b) This action is non-final. | | | | | | | |
|--|---|---|---|---|--|--|--|
| ## Examiner | Office Action Summary | | Application No. | Applicant(s) | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. If the period for reply specified above is less than thirty (30) days, a reply within the satisfactory minimum of thirty (30) days, a reply within the satisfactory minimum of thirty (30) days, a reply within the satisfactory minimum of thirty (30) days, a will be communication. If the period for reply specified above is less than thirty (30) days, a reply within the satisfactory minimum of thirty (30) days, a will be communication. If the period for reply specified above is less than thirty (30) days, a reply within the satisfactory minimum of thirty (30) days will be communication. If the period for reply specified above is less than thirty (30) days, a reply within the satisfactory minimum of thirty (30) days will be communication. If the period for reply specified above is less than thirty (30) days, and the communication. If the period for reply specified above is less than thirty (30) days, a reply within the satisfactory minimum of thirty (30) days will be communication. If the period for reply specified above is less than thirty (30) days and the communication. If the period for reply specified above is less than thirty (30) days and the communication. If the period for reply specified above is less than thirty (30) days and the communication. If the period for reply specified above is less than thirty (30) days will be communication. If the period for reply specified above is less than thirty (30) days and the communication. If the period for reply specified above is less than thirty (30) days and the communication. If the period for reply specified does in the period the minimum of the period than the mailing of the period than the mailing of the period than the mailing of t | | | 09/438,288 | SHENG, CHENGKE | | | |
| The MALING DATE of this communication appears on the cover sheet with the correspondence address.— Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ② MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Estatusions from my be available under the procedure of 37 CFR 1.13(s). In an event, however, may a reply be timely fixed Estatusions from my be available under the procedure of 37 CFR 1.13(s). In an event, however, may a reply be timely fixed Estatusions for reply specified slows in less bins thirty (20) days, a, reply within the statisticy minimum of thirty (30) days will be considered timely. If the period for reply specified slows is less bins thirty (20) days, a, reply within the statisticy minimum of thirty (30) days will be considered timely. If the period for reply specified slows is less bins thirty (30) days, and the replication is become ABA/DONED (30 U.S.C.§ 133). For this action is FINAL. 2b) This action is FINAL. 2b) This action is FINAL. 2b) This action is for allowance except for formal matters, prosecution as to the menits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3,7.9.18 and 19 is/are pending in the application. 4a) Of the above daim(s) is/are withdrawn from consideration. 5□ Claim(s) 1-3, is/are allowed. 6) Claim(s) 1-3, is/are allowed. 6) Claim(s) 1-3, is/are allowed. 6) Claim(s) 1-3, is/are allowed. 7) Claim(s) 1-3, is/are allowed. 8) Claim(s) 1-3, is/are allowed. 8) Claim(s) 1-3, is/are allowed. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Application Papers 9) The specification is objected to by the Examiner. Application Papers 9) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Acknowledgment is nade of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Acknowledgment is nade of a claim for foreign priority documents have been received | | | Examiner | Art Unit | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time many be available under the proteitions of 37 CPR 1.136(d.). In no event, however, may a reply be timely filled. - Extensions of time many be available under the proteitions of 37 CPR 1.136(d.). In no event, however, may a reply be timely filled. - Extensions of time many be available under the proteitions of 37 CPR 1.136(d.). In no event, however, may a reply be timely filled. - If the period for reply specified above, the maximum statulatory period will apply and will expire SIX (8) MONTH 15 from the making date of this communication. The period for reply is a specified above, the maximum statulatory period will apply and will expire SIX (8) MONTH 15 from the making date of this communication, even if timely filled, many reduce any search of the communication, even if timely filled, many reduce any search patient term adjustment. See 37 CPR 1.704(b). - Status 1) See Responsive to communication(s) filled on 18 March 2004. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.79.18 and 19 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) 5/3 is/are allowed. 5) Claim(s) 7.9.18 and 19 is/are rejected. 7) Claim(s) 3/3 is/are allowed. 6) Claim(s) 7.9.18 and 19 is/are rejected to . 8) Claim(s) 7.9.18 and 19 is/are rejected. 7) Claim(s) 3/4 and 19 is/are the proteition and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filled on | | | _ | 1 - | | | |
| THE MAILING DATE OF THIS COMMUNICATION. Ederations of the map be available under the procisions of 37 CFR 1.13(c). In no event, however, may a reply be timely filed after SX (8) MOXITS from the making date of this communication of 10 CFR 1.13(c). In no event, however, may a reply be timely filed after SX (8) MOXITS from the making date of this communication. Failure to reply vision the procision of the process of the proc | Period fo | | appears on the cover sheet with the o | correspondence address | | | |
| This action is FINAL. 2b) This action is non-final. | THE - Exte after - If the - If NC - Failt Any | MAILING DATE OF THIS COMMUNICATION in sions of time may be available under the provisions of 37 CFR SIX (6) MONTHS from the mailing date of this communication. In the period for reply specified above is less than thirty (30) days, a poly period for reply is specified above, the maximum statutory per ure to reply within the set or extended period for reply will, by state that the provided by the Office later than three months after the maximum stater than | N. 1.136(a). In no event, however, may a reply be tire reply within the statutory minimum of thirty (30) day iod will apply and will expire SIX (6) MONTHS from atute, cause the application to become ABANDONE | mely filed ys will be considered timely. the mailing date of this communication. ED (35 U.S.C. § 133). | | | |
| 2a) This action is FINAL. 2b) This action is non-final. 3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4 Claim(s) 1-3.7,9.18 and 19 is/are pending in the application. 4a) Of the above claim(s) is/are pending in the application. 4a) Of the above claim(s) is/are pending in the application. 5 Claim(s) 1-3 is/are allowed. 6 Claim(s) 7.9.18 and 19 is/are rejected. 7 Claim(s) is/are objected to. 8 Claim(s) are subject to restriction and/or election requirement. Application Papers 9 The specification is objected to by the Examiner. 10 The drawing(s) filled on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11 The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12 Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1 Certified copies of the priority documents have been received in Application No 3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1 | Status | | | | | | |
| 2a) This action is FINAL. 2b) This action is non-final. 3 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4 Claim(s) 1-3.7,9.18 and 19 is/are pending in the application. 4a) Of the above claim(s) is/are pending in the application. 4a) Of the above claim(s) is/are pending in the application. 5 Claim(s) 1-3 is/are allowed. 6 Claim(s) 7.9.18 and 19 is/are rejected. 7 Claim(s) is/are objected to. 8 Claim(s) are subject to restriction and/or election requirement. Application Papers 9 The specification is objected to by the Examiner. 10 The drawing(s) filled on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11 The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12 Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1 Certified copies of the priority documents have been received in Application No 3 Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1 | 1)[| Responsive to communication(s) filed on 18 | 8 March 2004. | | | | |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.7.9.18 and 19 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) 1-3 is/are allowed. 6) Claim(s) 7.9.18 and 19 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheel(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of Prafeperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | _ | | | | | | |
| 4) □ Claim(s) 1-3.79.18 and 19 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) 1-3 is/are allowed. 6) □ Claim(s) is/are objected to. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) □ Notice of References Cited (PTC-892) 2) □ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) □ Notice of Informal Patent Application (PTO-152) 9) □ Other: | 3)□ | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. 5) | Disposit | ion of Claims | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other: 6. Other: 7. Priority under 35 U.S. C. § 119(a). See 37 CFR 1.121(d). 8. Priority documents have been received. 9. Paper No(s)/Mail Date. 9. Notice of Informal Patent Application (PTO-152) 9. Notice of Informal Patent Application (PTO-152) 10. Notice of Informal Patent Application (PTO-152) | 5)⊠ 6)⊠ 7)□ 8)□ Applicat | 4a) Of the above claim(s) is/are without Claim(s) <u>1-3</u> is/are allowed. Claim(s) <u>7,9,18 and 19</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and ion Papers | drawn from consideration. d/or election requirement. | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other: | | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other: | | | | | | | |
| Priority under 35 U.S.C. § 119 12) | 11) | | | • | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) Attachment(s) Attachment(s) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) Paper No(s)/Mail Date | Priority ı | under 35 U.S.C. & 119 | | | | | |
| 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1) Interview Summary (PTO-413) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) Other: | 12)□ a)i | Acknowledgment is made of a claim for forei All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the papplication from the International Bure | ents have been received. ents have been received in Applicati riority documents have been receive eau (PCT Rule 17.2(a)). | ion No ed in this National Stage | | | |
| Paper No(s)/Mail Date 6) Other: | 1) Notic | te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Da | ate | | | |
| Datast and Todamada Office | Pape | r No(s)/Mail Date | · — | | | | |

Application/Control Number: 09/438,288

Art Unit: 2631

DETAILED ACTION

Response to Arguments

- 1. Applicant's arguments with respect to claims 7, 9, 18, 19 have been considered but are most in view of the new ground(s) of rejection.
- 2. It is noted that claim 9 current recites that the only amendment made to it was the dependency from claim 8 to claim 7; however, this is not accurate since almost all of claim 9 seems to have been amended.

Response to Amendment

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 7, 9, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lefever USPN 4,599,732.
- 5. As per claim 7, (preamble is not afforded patentable weight) Lefever teaches storing a first scan window of the digital information (Lefever figs. 3, 4, 5: R1i is stored in ROM.); scanning the first scan window (Lefever fig. 4: R1i) for all instances of a first symbol of the symbol information (Lefever fig. 4: R1i is correlated in the frames and this involves scanning; fig. 3: 64: "ROM known symbol sequence memory"; paragraph 21: "ROM 64 contains, in 172 successive memory locations, digital values corresponding to the successive ones and zeroes of a

Application/Control Number: 09/438,288

Art Unit: 2631

PN sequence to be correlated with the received <u>symbol</u> samples through the action of accumulators 71 and 72."); storing a second scan window of the digital information (Lefever figs. 3, 4, 5: R2i is stored in ROM.); and scanning the second scan window (Lefever fig. 4: R2i) for all instances of a second symbol of the symbol information (Lefever fig. 4: R2i is correlated in the frames and this involves scanning; fig. 3: 64: "ROM known <u>symbol</u> sequence memory"; paragraph 21: "ROM 64 contains, in 172 successive memory locations, digital values corresponding to the successive ones and zeroes of a PN sequence to be correlated with the received symbol samples through the action of accumulators 71 and 72.") What Lefever does not teach is symbol information. It would have been obvious to one skilled in the art at the time of the invention to modify Lefever to teach symbol information since Lefever teaches symbols and since the symbols are a sequence of 1s and 0s, they have information.

- 6. As per claim 9, Lefever teaches the method of claim 7 wherein scanning the first scan window (Lefever fig. 4: R1i) is achieved by a first PN code (Lefever col. 8 line 26: "PN sequence R1") and scanning the second scan window (Lefever fig. 4: R2i) is achieved with a second PN code (Lefever paragraph 21: "ROM 64 contains, in 172 successive memory locations, digital values corresponding to the successive ones and zeroes of a PN sequence to be correlated with the received symbol samples through the action of accumulators 71 and 72.").
- 7. As per claim 18, Lefever teaches the method of claim 7, wherein the second symbol immediately follows the first symbol in the symbol information (Lefever fig. 4: R2i follows R1i).
- 8. As per claim 19, Lefever teaches the method of claim 7, wherein the second scan window overlaps the first scan window (Lefever fig. 4: R1i and R2i overlap in scanning over the same frame).

Application/Control Number: 09/438,288

Art Unit: 2631

Allowable Subject Matter

9. Claims 1, 2, 3 are allowed based on prior action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK